Interoperability for Texas: Powering Health 2020

**As Required by
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**Texas Health and Human Services
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Executive Summary

According to Section 4003 of the 21st Century Cures Act (Cures Act), the term "interoperability" describes health information technology (HIT) that "(A) enables the secure exchange of electronic health information with, and use of electronic health information from, other health information technology without special effort on the part of the user; (B) allows for complete access, exchange, and use of all electronically accessible health information for authorized use under applicable State or Federal law; and (C) does not constitute information blocking as defined in section 3022(a)."[1] Interoperability gives healthcare providers the ability to easily access health information external to their electronic health record system. The collection of information allows the provider to have a current clinical overview of a patient's health information which enables more informed decision-making. Interoperable systems can help cut healthcare costs by reducing unnecessary tests, reducing the time needed to collect and process records manually, and identifying appropriate interventions by using computer-assisted decision-making.

This submission is the third biennial report to the Legislative Budget Board (LBB) and the Governor outlining Texas Health and Human Services (HHS) agencies' efforts to achieve interoperability. It describes information systems that exchange protected health information (PHI) within and across HHS agencies and between HHS agencies and healthcare providers.

This report outlines policy changes at the federal level, including a new federal plan for improving the exchange of health information. This report builds on plans described in the 2018 report to improve interoperability in Texas and within HHS. This report discusses:

- The collaboration between the Texas Health and Human Services Commission (HHSC), Texas Health Services Authority (THSA), and several local, Texas-based Health Information Exchanges (HIEs) during Hurricane Harvey, providing an example of successful interoperability;

- Recommendations for HHS agencies from the HHSC e-Health Advisory Committee (eHAC);

- HHS' plans to make its HHS Gateway a Center of Excellence to simplify the secure exchange of clinical data between authorized users; and

- The status of HHS systems' interoperability.

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[1] https://www.healthit.gov/topic/interoperability. Retrieved February 19, 2020.

The report shows how HHS has continued to align and adapt its resources to ensure interoperability investments minimize their impact on the provider community and improve HHS' ability to accomplish its mission.

1. Introduction

Pursuant to Government Code, Section 541.007, HHSC is required to submit a biennial report to the LBB and the Governor regarding HHS agencies' progress on advancing the interoperability of their information systems that exchange PHI within and across HHS agencies and between HHS agencies and healthcare providers.

Interoperability enables entities involved in healthcare, including providers, payers, and public health departments, to efficiently and securely exchange patient information with each other to provide improved healthcare services, improve the patient experience, better manage costs, facilitate research, and protect the public from health risks. HHS agencies have long been engaged in using technology to achieve and advance interoperability, facilitating the exchange of information between agencies and supporting the electronic exchange of information between providers and state agencies.

Collaboration across the HHS system and between HHS agencies and partners remains essential to advancing interoperability. Key focus areas include standards adoption, establishing connections between trading partners, promoting privacy and confidentiality, and addressing information security.

While the adoption of standards by state agencies facilitates the exchange of information, it is critical that agency program areas have the technical resources required to implement standards and support trading partners' adoption of standards.

The focus of this report is the interoperability between healthcare providers' and HHS' information systems. This report includes HHS' goals related to the exchange of health information, including facilitating care coordination, ensuring quality improvement, and realizing cost savings. It recognizes the importance of ongoing collaboration between business and technology areas within HHS, and between HHS agencies and stakeholders, in identifying how interoperability affects the delivery of healthcare services, helps manage costs, and improves health through the use of applicable standards. The report also shows how HHS continues to expand the capacity and capabilities of its information systems to use interoperability to meet the health needs of Texans.

2. Background

The use of standards for exchanging PHI has continued to evolve over the last two years, supported at the federal level through new legislation, such as the 21st Century Cures Act[2] (Cures Act), tools such as the Interoperability Standards Advisory (ISA)[3], federal initiatives like Patients over Paperwork[4], updated regulations for Medicare and Medicaid Promoting Interoperability[5] (PI) programs, and the development of additional standards that support business needs.

21st Century Cures Act

In 2016, Congress passed the Cures Act to drive the electronic access, exchange, and use of health information. The Office of the National Coordinator for Health Information Technology (ONC), within the federal Department of HHS, has produced a Cures Act Final Rule which implements the statute's interoperability provisions to promote patients' control over their own health information.

The Cures Act Final Rule fosters innovation in healthcare to deliver better information, more conveniently, to patients and their providers. It also promotes transparency through modern technology, providing opportunities for the public to gain visibility into the services, quality, and costs of healthcare. As entities change practices to meet the Cures Act Final Rule's requirements, patients will get improved on-demand access to information within their medical records using a new data standard, the United States Core Data for Interoperability (USCDI). The USCDI is a new standard, developed through collaboration between the private sector and government, which describes what data an electronic health record (EHR) system must support. The first iteration of the USCDI includes clinical notes, test results, and medication information.

As compliance with the Cures Act Final Rule becomes mandatory by 2021, patients will be increasingly able to use a smart phone application or computer to access their medical records, facilitating their ability to make informed choices regarding treatment options and compare costs across healthcare providers with the end goal of improving health outcomes.

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[2] https://www.healthit.gov/buzz-blog/interoperability/achieving-the-interoperability-promise-of-21st-century-cures/. Retrieved February 20, 2020.
[3] https://www.healthit.gov/isa. Retrieved February 20, 2020.
[4] https://www.cms.gov/About-CMS/story-page/patients-over-paperwork.html. Retrieved February 19, 2020.
[5] https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index. Retrieved February 19, 2020.

The Cures Act Final Rule includes provisions that require EHR systems' support for data standards and Application Programming Interface (APIs)[6]. These technical provisions are intended to inject competition into healthcare by promoting an entrepreneurial economy and opportunities for new business models that provide novel services and additional choices in care. See the section on Information Blocking (below) in this report for additional information.

Trusted Exchange Framework and Common Agreement (TEFCA)

To address interoperability requirements in the Cures Act, the ONC has begun to develop Trusted Exchange Framework and Common Agreement (TEFCA) to facilitate health data exchange[7]. The goal of TEFCA is to establish a nationwide technology and legal framework that supports healthcare providers' and other healthcare stakeholders' exchange of health information through a series of interconnected networks, under the oversight of a single coordinating entity. TEFCA uses the USCDI to advance data exchange and provides a predictable, transparent, and collaborative process for supporting medical treatment, patient access to data, public health, and administrative services.

On April 19, 2019, a second draft of the TEFCA framework was released. The second draft outlines a common set of principles, terms, and conditions - the "Common Agreement"- to help enable nationwide exchange of electronic health information. This exchange would be funneled through a network consisting of nodes called Qualified Health Information Networks (QHINs) that include health information networks (HINs) and other entities involved in healthcare. See Appendix A for additional information.

Information Blocking

A significant challenge to accessing a patient's full medical history is information blocking. Healthcare providers have significant economic incentives to not share health information and to slow progress towards greater data exchange, as recognized by the ONC in a 2015 report to Congress[8]. Some providers view electronic health information as a commodity and a way to maintain their market share, while some healthcare IT developers make it cost-prohibitive for providers to share Electronic Health Information (EHI) as a means to control market share by

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[6] APIs support interoperability between systems by enabling a standard method for different software applications to interact in real-time.

[7] https://www.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement. Retrieved February 19, 2020.

[8] Ibid: https://www.healthit.gov/sites/default/files/reports/info_blocking_040915.pdf. Retrieved February 19, 2020.

"deter[ing] exchanges with competing technologies or services."[9] Regulations developed under the Cures Act limit information blocking by healthcare providers, health IT developers, exchanges, and networks using Electronic Health Record Technology. The regulations provide several exceptions where access to information may be restricted.

The U.S. Department of Health and Human Services recently finalized Cures Act regulations that support the seamless and secure access and exchange of EHI. The regulations require that providers and patients have no- or low-cost access to patients' electronic health information. It is expected this access will drive increased innovation and competition that will lead to more care and treatment choices.

Interoperability Standards Advisory (ISA)

The ISA is a resource maintained by the ONC that provides a publicly-accessible directory of standards used for the exchange of EHI. Many federal programs require the use of standards included in the ISA. HHS agencies use the ISA as a key reference to inform standards selection for state programs and assist the agencies in complying with House Bill (HB) 2641, 84th Texas Legislature, Regular Session 2015.

Standards in the ISA have been submitted by interested parties, such as standards-development organizations and providers. Both the range of subjects and the number of standards included in the ISA have expanded over time. The 2017 and 2018 editions of the ISA included basic standards that supported many public health and research needs. In 2018, support for administrative functions were added.

In 2019, the ISA was transformed from an annual publication to a web-based resource. The web-based version includes new content, such as entries for newly-released electronic prescribing standards; standards used to communicate the relationship between patient and another person, such as a family member or caregiver; and administrative standards for claims, enrollment, and premium payment processing.

The ISA serves as a tool to drive dialogue regarding standards selection when more than one standard is available to support a particular need. These exchanges are intended to assist the industry in condensing standards, where possible, to improve efficiencies.

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[9] Ibid page 15-16.

Patients over Paperwork

Patients over Paperwork is a Centers for Medicare and Medicaid Services (CMS) initiative focused on identifying which healthcare regulations should be eliminated or updated to reduce the amount of time healthcare providers spend on administrative activities, as well as increase time spent with patients. The Patients over Paperwork initiative is expected to eliminate over 42 million hours of time spent on paperwork by 2021. Patients over Paperwork also helped to establish the Patient Driven Payment Model (PDPM), an innovative, new skilled nursing facility (SNF) case mix classification system, which ties SNF payments to patients' conditions and care needs rather than the quantity of services provided. It also simplifies complicated paperwork requirements for performing SNF patient assessments.

Promoting Interoperability Programs

In 2009, the Health Information Technology for Economic and Clinical Health (HITECH) Act was passed, establishing the Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs to provide financial incentives for Medicare and Medicaid providers to adopt, implement, and use Certified Electronic Health Record Technology (CEHRT). In 2018, CMS renamed the program to be the Medicare and Medicaid PI programs and, for Medicare, shifted from an incentive program to a requirement for Medicare providers to maximize payment rates.

In the summer of 2018, CMS released new regulations revising the Medicaid PI program for both hospitals and ambulatory providers to place greater emphasis on interoperability between healthcare providers and in providing patients electronic access to their health information. Within the programs, CMS changed the name of one of the objectives providers are required to meet, updating the text from "Public Health and Clinical Data Reporting," to "Public Health and Clinical Data Exchange," recognizing the importance of support for bi-directional exchange of information that can meet the needs of providers caring for individual patients as well as to address community health risks. The new regulations support the use of APIs as a method for real-time interoperability between systems.

In the Medicaid PI program, which is fully-funded by the federal government and administered by the states, including Texas, healthcare providers meeting certain criteria, such as serving Medicaid patients, would receive a set amount of funding over a three to five-year period for adopting, implementing, and using CEHRT. The final year for a program participant to receive an incentive payment in the Medicaid PI Program is Calendar Year (CY) 2021. HHSC's Medicaid and Children's Health Insurance Program (CHIP) Services division is currently planning sunset activities for the Texas Medicaid PI Program. CMS has not announced a follow-on program for the Medicaid provider community. CMS will continue to promote EHR system

interoperability and data exchange between providers and patients through other ongoing Medicare quality programs, such as the Merit-based Incentive Payment System (MIPS) and Advanced Alternative Payment Models (APMs).

Standards Development and Adoption

The use of industry-wide standards supports interoperability and helps reduce the need to customize information systems. Organizations such as Health Level 7 (HL7) and the Council for Affordable Quality Healthcare (CAQH) Committee on Operating Rules for Information Exchange (CORE) have worked to improve and advance standards supporting the delivery and management of health services. HHS staff have participated in the development of standards that could be used to improve efficiencies and reduce Texas' costs.

CAQH CORE[10]

HHS has adopted the CAQH CORE standards for processing Medicaid claims. As HHS moves toward the full adoption of all five phases of operating rules for electronic transactions through CORE Certification, substantial savings can be recognized. The savings result from automation, standardization, and simplification of healthcare administrative transactions amongst trading partners. The more widely these operating rules are adopted, the greater the savings.

Fast Healthcare Interoperability Resources (FHIR)[11]

Fast Healthcare Interoperability Resources (FHIR) is an emerging standard for exchanging healthcare information electronically and builds on previous standards developed by HL7. Instead of using messages for exchanging data, FHIR focuses on real-time transactions between information systems using standardized communication protocols to request and receive discreet data. Patients' demographics, admissions, diagnostic reports, and medications can each be accessed independently. It can be used to establish interoperability between legacy and other healthcare information systems.

Health Information Exchange Activity

The Sequoia Project

The Sequoia Project is a national non-profit organization focused on advancing the electronic exchange of health information. Among other activities, the Sequoia Project undertook coordination of the National eHealth Exchange from ONC and is

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[10] https://www.caqh.org/about/press-release/medicaid-can-save-more-48-billion-moving-fully-electronic-transactions.

[11] https://www.hl7.org/fhir/overview.html. Retrieved March 1, 2020.

currently contracted by ONC to serve as the Responsible Coordinating Entity (RCE) for TEFCA (described above in this report). The Sequoia Project is also responsible for coordinating national implementation of the Patient Unified Lookup System for Emergencies (PULSE) (described later in this report).

Carequality

Carequality[12], initially established as part of the Sequoia Project, is now an independent non-profit organization. Carequality is a network-to-network trust framework developed by representatives from across healthcare to connect data sharing networks to each other. This allows healthcare providers to securely share patient data with providers who are part of an entirely different network. Examples of network types include vendor networks, payer networks, and other networks that may consist of different entity types, such as the eHealth Exchange network.

Health Information Exchanges (HIEs)

Chapter 182 of the Texas Health and Safety Code defines an HIE as an organization that[13]:

1. Assists in the transmission or receipt of health-related information among organizations transmitting or receiving the information, according to nationally recognized standards and under an express written agreement with the organizations;

2. As a primary business function, compiles or organizes health-related information designed to be securely transmitted by the organization among physicians, other healthcare providers, or entities within a region, state, community, or hospital system; or

3. Assists in the transmission or receipt of electronic health-related information among physicians, other healthcare providers, or entities within:

   a. A hospital system;

   b. A physician organization;

   c. A healthcare collaborative, as defined by Section 848.001, Insurance Code;

   d. An accountable care organization participating in the Pioneer Model under the initiative by the Innovation Center of the Centers for Medicare and Medicaid Services; or

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[12] https://sequoiaproject.org/restructure/. Retrieved March 1, 2020.
[13] Texas Health and Safety Code Chapter 182, Subchapter D §182.151.

e. An accountable care organization participating in the Medicare Shared Savings Program under 42 U.S.C. Section 1395jjj.

Many exchanges of health information are provided through locally-controlled, community-based HIEs (Local HIEs). Each Local HIE may serve a different, potentially overlapping area and can provide a unique array of services such as:

- Exchange of patient data with other providers,
- Connectivity with Emergency Medical Services to support pre-hospitalization activities,
- Advanced analytics,
- Messaging,
- Connectivity with social determinant of health information, and
- Other services.

Local HIEs in Texas

Texas has adopted a community-based approach for developing HIEs. Currently, there are five established Local HIEs operating as non-profit organizations in Texas. These Local HIEs include Greater Houston Healthconnect (GHH), HASA (formerly called Healthcare Access San Antonio), Rio Grande Valley HIE (RGVHIE), Paso del Norte Health Information Exchange (PHIX), and Integrated Care Collaboration (ICC). They serve hospitals, ambulatory care providers, payers, laboratories, and other entities throughout the state by serving as repositories and directories for patients' information.

Texas Health Services Authority (THSA)[14]

Interoperability for PHI in Texas is supported by the Texas Health Services Authority (THSA). THSA was formed under Texas Health and Safety Code Chapter 182 to promote, implement, and facilitate the secure electronic exchange of health information in the State of Texas. THSA is a legislatively-created public-private collaborative, formed as a 501(c)(3) organization. THSA is responsible for serving as a "[C]atalyst for the development of a seamless electronic health information infrastructure to support the healthcare system in the state and to improve patient safety and quality of care."[15] THSA's Board of Directors members are appointed by the Governor. HHSC and the Texas Department of State Health Services (DSHS) are represented on the Board in an *ex officio* capacity. THSA operates HIETexas, a statewide HIE to:

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[14] http://www.thsa.org/; see also, Chapter 182, Health & Safety Code.
[15] Texas Health and Safety Code, Chapter 182, Sec 182.001.

- Serve as a connection point across Local HIEs and other healthcare entities,

- Serve as a connection point to access national networks,

- Provide certain state-level services, and

- Serve as a gateway to services provided by state agencies.

HHS agencies continue to work with THSA, Local HIEs, and other stakeholders to advance the use of standards to support interoperability. The current focus of activities is on four areas: 1) expanding connectivity, 2) emergency department (ED) notifications, 3) disaster response, and 4) public health reporting.

Expanding Connectivity

Using enhanced federal funding provided under the HITECH Act, HHSC and DSHS are working with THSA, Local HIEs, and other stakeholders to expand Texas' information infrastructure to establish connectivity and interoperability between hospitals, ambulatory providers, laboratories, public health agencies, and Medicaid. This connectivity leverages the efficiencies that Local HIEs and HIETexas can provide. The connectivity builds upon progress achieved through the Medicare and Medicaid PI programs, the 1115 Medicaid waiver (1115 Waiver), and leverages other investments from public and private sources. Connectivity through HIEs is critical in reducing the number of connections a provider needs to establish to efficiently exchange patient information with other providers and state agencies.

Providers are expected to use their connectivity to other providers through HIEs to improve patient treatment and coordination of care. Examples of improvements include access to, and exchange of, patient history; the elimination of unnecessary medical testing; and a reduction in the repetitive questioning of patients regarding the same medical problem. Medicaid providers can leverage this exchange technology to meet requirements for value-based care included in the 1115 Waiver.

Emergency Department Encounter Notification (EDEN) System

HHSC is working with THSA, Local HIEs, providers, hospitals, and contracted Managed Care Organizations (MCOs) to advance the Emergency Department Encounter Notification (EDEN) system. Through the EDEN system, this information will be sent automatically from hospital emergency rooms to MCOs, informing the MCO of patient arrival at, admission to, and discharge from participating hospitals' emergency rooms. This information can also be electronically transmitted to the patient's primary care provider. This information is important to coordinate care as the patient navigates the healthcare system. The system is currently in production.

Disaster Response or Patient Unified Lookup System for Emergencies (PULSE)

THSA is currently working with key stakeholders to develop the Patient Unified Lookup System for Emergencies (PULSE) in Texas. A national initiative of The Sequoia Project, PULSE is the same system that first responders and medical providers turned to during the 2018 California wildfires. PULSE is a nationwide Health IT disaster response platform that can be deployed at the city, county, or state level to authenticate and assist healthcare volunteer providers during times of disaster.

PULSE allows disaster workers to securely query and view patient documents from all connected healthcare organizations. The networks that authorized providers access have already taken all necessary Health Insurance Portability and Accountability Act of 1996 (HIPAA) precautions to protect patient data. PULSE is designed to access health information from multiple sources during response to a natural or manmade disaster.

HHSC is implementing PULSE in partnership with THSA. In 2017, THSA's query-based HIE services were scheduled to terminate as the entity was in the process of converting HIETexas, THSA's state-level HIE network, from a query-based exchange service to an alerts-based care coordination platform. However, THSA delayed that transition after Hurricane Harvey hit Texas and there was a need to continue offering query-based HIE to assist in recovery efforts by allowing patients' health information to follow them.

During the response to Hurricane Harvey, Texas HIEs set up access in select shelters and provided patient look-up services to medical teams operating in those environments. Although several successful information hits resulted, the process needs to be scaled and standardized across the state.

PULSE represents a significant improvement over the HIE involvement during the Hurricane Harvey response. It provides emergency healthcare workers direct access to broader sources of critical health information. Texas is implementing PULSE through federal funding (90%) and THSA match (10%) to leverage and expand the state-level services, HIE, and provider connectivity.

During disasters, Texas' large and highly complex healthcare delivery system performs as a health information exchange model with HIEs that have limited interoperability across the state. An interoperable model is required to support meaningful coordination of care as services are delivered in shelter sites. It is essential that the most clinically relevant information be available to support individuals involved in disaster situations. The access and use of health information is critical to patient quality of care during these times of crisis.

The project is based on a use case that incorporates interoperable health information technology tools and services that support disaster response activities in shelter locations. It incorporates national standards that facilitate health information exchange and builds upon the HIE work already accomplished in Texas.

3. Health and Human Services Agencies

HHS Infrastructure to Support Interoperability

HHS Gateway

DSHS, in collaboration with HHSC, has been developing an Integration and Data Exchange Center of Excellence (iCoE) technology service as a primary point for data exchange between HHS agencies and healthcare providers, MCOs, and other entities. Incorporating a Commercial-off-the-shelf (COTS) software tool to receive, transform, and route messages, the iCoE currently supports the exchange of select public health data, such as syndromic surveillance, and will evolve to support the exchange of data for a broad range of HHSC and DSHS programs, including EDEN system data, data from the state's local mental health authorities, and data from private healthcare providers. The intention of the iCoE is to be flexible, enabling the exchange of data either through leveraging HIEs' connections to providers or directly between healthcare providers and state agencies. The system allows state staff to route messages to the appropriate receiving system(s), transform messages into the appropriate formats, and support real-time FHIR-based connections.

THSA is a primary connection point for the iCoE, supporting HHSC's receipt of statewide clinical data from Medicaid providers linked to HIEs that are connected to HIETexas. HHSC may leverage the capabilities of the iCoE for anticipated large volumes of clinical data transmitted from Medicaid providers, including standardized admission, discharge, transfer (ADT) data related to EDEN, other clinical data, and lab reports for Medicaid clients.

DSHS is committed to transforming its information systems to use the iCoE. As each DSHS system that relies on data exchange with external systems is replaced or undergoes a major overhaul, the use of the iCoE is reviewed as part of the Information Technology (IT) governance process. Concerns about using the iCoE include funding and the time required to modify other COTS systems to use its capabilities. Some commercial systems are not modular; therefore, it may be complicated to integrate them with the iCoE.

Public Health Information Systems

DSHS operates a broad range of information systems to support public health services. Examples of systems in its portfolio include systems that manage vital records, inpatient and outpatient discharge data, and health registries such as the Texas Cancer Registry (TCR). DSHS also operates the state public health laboratory which uses several laboratory information management systems and ancillary

technologies. Several of the programs DSHS operates support providers participating in CMS' Promoting Interoperability programs.

Texas Electronic Vital Events Registrar (TxEVER)

DSHS has implemented a Modified Commercial-off-the Shelf (MCOTS)[16] system, Texas Electronic Vital Events Registrar (TxEVER), as a comprehensive electronic vital records system. TxEVER enables registration and data collection for birth, death, fetal death, marriage, and divorce. TxEVER supports all DSHS vital events operations including registration, amendments of birth and death records, and reporting.

Center for Health Statistics-Inpatient and Outpatient Discharge Data

Texas Health Care Information Collection (THCIC) program, within DSHS's Center for Health Statistics, establishes and maintains a contracted healthcare data collection system authorized under Health and Safety Code, Chapter 108. THCIC collects patient claim data from hospitals, ambulatory surgery centers, and free-standing emergency medical care facilities (beginning in October 2020).

THCIC's goal, per state law, is to provide data and information for consumers to make informed decisions about healthcare. The data and information allow THCIC, the Texas Legislature, consumers, and researchers to view standardized information about the diagnoses, procedures, and charges for services. THCIC generates reports regarding the utilization and quality of healthcare provided in Texas. The data includes patient-level diagnoses, procedures, and charges. The data and reports include facility-level identifiers and characteristics about those facilities. DSHS and HHSC programs use the data to produce reports or assist their programs as authorized by law.

THCIC also collects data on commercial health maintenance organizations (HMOs) operating in Texas. A contracted vendor collects and processes the HMO data. THCIC transfers the HMO data to the Office of Public Insurance Counsel (OPIC), which produces reports for the public.

In response to changes in state law (under HB 2641, 84th Texas Legislature, Regular Session 2015), the vendor selected under competitive bid for THCIC's healthcare data collection system modified their existing system to use the nationally recognized data transmission standard, the American National Standards

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[16] A MCOTS system requires some customization for deployment but is not a fully custom-built system. This allows the purchaser to share the cost of developing the core technology with the vendor's other customers while also realizing some of the benefits of having a custom-designed solution.

Institute (ANSI)-approved claim file format (data standard), including the "K3" segment to collect state required data elements not required by the format. The claim file format is approved under the HIPAA.

The Texas Cancer Registry (TCR)

TCR collects, maintains, and disseminates timely, complete, and accurate cancer data that contributes towards cancer prevention and control, improving diagnoses, treatment, survival, and quality of life for all cancer patients. TCR data is the foundation for measuring Texas's cancer burden; comprehensive cancer control efforts; health disparities; and progress in prevention, diagnosis, treatment, and survivorship. Healthcare providers may select one of two formats to submit data: a format developed by the North American Association of Central Cancer Registries (NAACCR) or an HL7 standard consistent with the PI program requirements.

Communicable Disease Reporting-Electronic Laboratory Reporting (ELR) and the National Electronic Disease Surveillance System (NEDSS)

Communicable disease reporting is a critical component of health surveillance activities. It is the primary tool public health uses to collect information regarding communicable diseases. DSHS provides technology that is used to gather information from across Texas and facilitate information sharing with and between local health departments (LHDs).

One of the services DSHS provides is Electronic Laboratory Reporting (ELR). ELR enables hospitals and laboratories to electronically submit laboratory test results reports to DSHS. DSHS' ELR system distributes data into back-end information systems, each designed to meet specific needs. Messages are submitted in a specific HL7 format, consistent with nationally-specified standards.

Most ELR data are forwarded to DSHS' implementation of the National Electronic Disease Surveillance System (NEDSS). NEDSS is used to identify and respond to disease outbreaks. NEDSS supports communicable disease investigations conducted by LHDs and DSHS regional offices. Data included in NEDSS are disease diagnosis, risk factors, lab confirmation results, and patient demographic information. Each state's NEDSS-compatible system must meet specific requirements. As of February 2020, all 50 states and Washington, DC, use a NEDSS-compatible system.

ImmTrac2, the Texas Immunization Registry Replacement

The Texas Immunization Registry Replacement (ImmTrac2), is the state's immunization information system (IIS). ImmTrac2 is a secure, confidential service provided at no cost to users or participating individuals. Individuals, or their legal guardians, must consent to have their information included in the registry and may withdraw their consent at any time. Currently, participating individuals do not have direct electronic access to ImmTrac2.

ImmTrac2 receives electronic copies of immunization information from private and public healthcare providers, health plans, and other information sources. The registry allows authorized users to add individuals to the registry, access participating individuals' immunization history, and add new immunization information to individuals' registry records.

ImmTrac2 is also used to record immunizations received by emergency responders and their family members. ImmTrac2 is also used for tracking immunizations and anti-viral or other medications provided in response to, or in preparation for, a disaster.

ImmTrac2 supports standards-based messaging using nationally-adopted HL7 message formats consistent with federal PI program requirements. The registry is completing implementation of bi-directional, real-time information exchange using nationally-specified standards.

Texas Syndromic Surveillance

Syndromic surveillance allows for early detection of abnormal health patterns that could result in high morbidity and mortality. The purpose of syndromic surveillance is to protect the community's health through public health interventions based on enhanced surveillance of emerging public health conditions and consolidation of health-related data state-wide. Texas' statewide implementation of syndromic surveillance is known as Texas Syndromic Surveillance (TxS2). It is hosted at DSHS and is used by DSHS public health regions, DSHS' central office, LHDs, and data providers (hospitals with EDs, free standing emergency centers, and urgent care centers). Data collected through TxS2 is analyzed by professionals at the institutional, local, regional, and state levels to help detect the emergence of conditions such as COVID-19 and to gain additional insight into hospitalizations due to drug abuse.

Currently, more than 300 hospitals are participating in the system, exchanging data using a standardized, HL7-formatted message with DSHS, Tarrant County, or the City of Houston. Tarrant County Public Health and the City of Houston send the data

they receive to DSHS to enable a state-wide view of syndromic surveillance data. Data are reported using national standards that are referenced in the federal Promoting Interoperability programs.

Public Health Laboratory Services

DSHS operates one of the largest public health laboratories in the world, providing a wide range of services from environmental testing through newborn screening (NBS). The DSHS laboratory is continuing to improve its interoperability, working to implement standards-based Electronic Test Ordering and Results capabilities to improve the processes for healthcare providers to submit test orders and retrieve results.

The Laboratory NBS initiative will expand DSHS' capacity to electronically receive newborn screening test orders and provide test results to healthcare providers, reducing the steps required by enabling the secure, standards-based electronic transactions between providers' EHRs, and DSHS' systems.

Health and Human Services e-Health Advisory Committee (eHAC)

Established by the Texas Health and Human Services Commission, the eHAC[17] is charged with:

- Advising HHS agencies on the development, implementation, and long-range plans for healthcare information technology and health information exchange, including the use of:

  ‣ Electronic health records, computerized clinical support systems, health information exchange systems for exchanging clinical and other types of health information, and

  ‣ Other methods of incorporating health information technology in pursuit of greater cost-effectiveness and better patient outcomes in healthcare and population health.

- Advising HHS agencies on incentives for increasing healthcare provider adoption and usage of an electronic health record and health information exchange systems. HHS agencies on the development, use, and long-range plans for telemedicine, telehealth, and home telemonitoring services, including consultations, reimbursements, and new benefits for inclusion in Medicaid telemedicine, telehealth, and home telemonitoring programs.

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[17] https://hhs.texas.gov/about-hhs/leadership/advisory-Committees/e-health-advisory-Committee, retrieved April 28, 2020.

The eHAC membership includes health and human services stakeholders who are concerned with the use of HIT, HIE, telemedicine, telehealth, and home telemonitoring services. The eHAC membership includes representation from the Texas Medical Board, the Texas Board of Nursing, the Texas State Board of Pharmacy, the Statewide Health Coordinating Council, MCOs, representatives from the pharmaceutical industry, academic health science centers, an expert on telemedicine, an expert on home telemonitoring services, a consumer of health services through telemedicine, a Medicaid provider, a representative from the THSA, a representative from a local or regional HIE, and representatives with expertise in implementation of electronic health records, computerized clinical support systems, and HIE systems for exchanging clinical and other types of health information. The Committee also includes ex-officio representatives from HHSC and an ex-officio representative from DSHS.

The eHAC's December 2018[18] and February 2020[19] annual report presented recommendations that are included in Appendix B in this report.

Intellectual and Developmental Disabilities and Behavioral Health Services (IDD-BHS)

Intellectual and Developmental Disabilities and Behavioral Health Services (IDD-BHS) continue to improve and advance interoperability between state and contracted providers' systems. However, the work is Texas-focused and has required the development of Texas-specific standards. While there may be high-level standards for exchanging general medical information, there has been limited development of national standards for the exchange of data associated with specific behavioral health evaluations such as the Child and Adolescent Needs and Strengths (CANS) and the Adult Needs and Strengths Assessment (ANSA). Since there are no national standards, each provider must separately modify their system, resulting in increased costs.

Local Intellectual Developmental Disability Authorities (LIDDA)

Since 2013, the Texas Legislature has continued to make significant investments to support HHSC's efforts in expanding its technology and operational needs for the

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[18] *Texas Health and Human Services (HHS) e-Health Advisory Committee [Annual Report], December 2018,* https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2018/hhs-ehac-report-dec-2018.pdf. Retrieved May 5, 2020.

[19] *Texas Health and Human Services (HHS) e-Health Advisory Committee* [Annual Report], February 2020, https://hhs.texas.gov/sites/default/files/documents/laws-regulations/reports-presentations/2020/hhs-ehac-report-feb-2020.pdf. Retrieved April 24, 2020.

federally-mandated Preadmission Screening and Resident Review (PASRR) requirements which are applied to all individuals seeking admission to a Medicaid-certified nursing facility, regardless of funding source. In June 2017, the Medicaid portal was modified to support full automation of previous manual authorization processes for specialized services resulting from a PASRR evaluation. The system enhancement has since improved the timeliness and accuracy of tracking and reporting for all nursing facility authorization for specialized services for individuals seeking services.

Batching in CMBHS for Home and Community Based Services-Adult Mental Health (HCBS-AMH)

Currently, the Home and Community-Based Services - Adult Mental Health (HCBS-AMH) program providers must complete all functions manually, without the benefit of automation. In September 2018, HHSC began the process of automating many programmatic functions in CMBHS, with a tentative deployment date of August 23, 2020. In partnership with the CMBHS team, the Texas Council of Community Centers and current providers, BHS continues working through this process, which will include batching service notes, which was identified as a critical change based on feedback from stakeholders. Development is currently proceeding in accordance with the scheduled deployment timeline.

Batching in CMBHS for Youth Empowerment Services (YES)

On May 11, 2018, the HHSC CMBHS team completed the deployment and testing window for batch functionality for Youth Empowerment Services (YES) documents in CMBHS, enabling machine-machine exchange of data. Functionality for full YES documents leveraged work on exchange of service notes, clinical eligibility, and an individual plan of care.

4. Conclusion

Progress on the interoperability of information technology systems continues to be made at both the state and national levels. At HHS agencies, efforts are underway to expand interoperability through the onboarding of providers using interoperability standards that improve the state's capabilities in disease prevention, population health management, and program oversight. HHS agencies continue to work towards fully leveraging the connections being established through HIETexas to HIEs and the healthcare provider community at the state and national levels to improve opportunities for care coordination and Texas' disaster response posture.

HHS endeavors to improve its stakeholders' involvement in planning for the implementation of new systems and processes supporting interoperability, appropriately incorporating the recommendations from the HHSC eHAC and feedback from its clients and provider communities. HHS fully acknowledges the important role interoperability can play in improving the health, safety, and well-being of Texans.
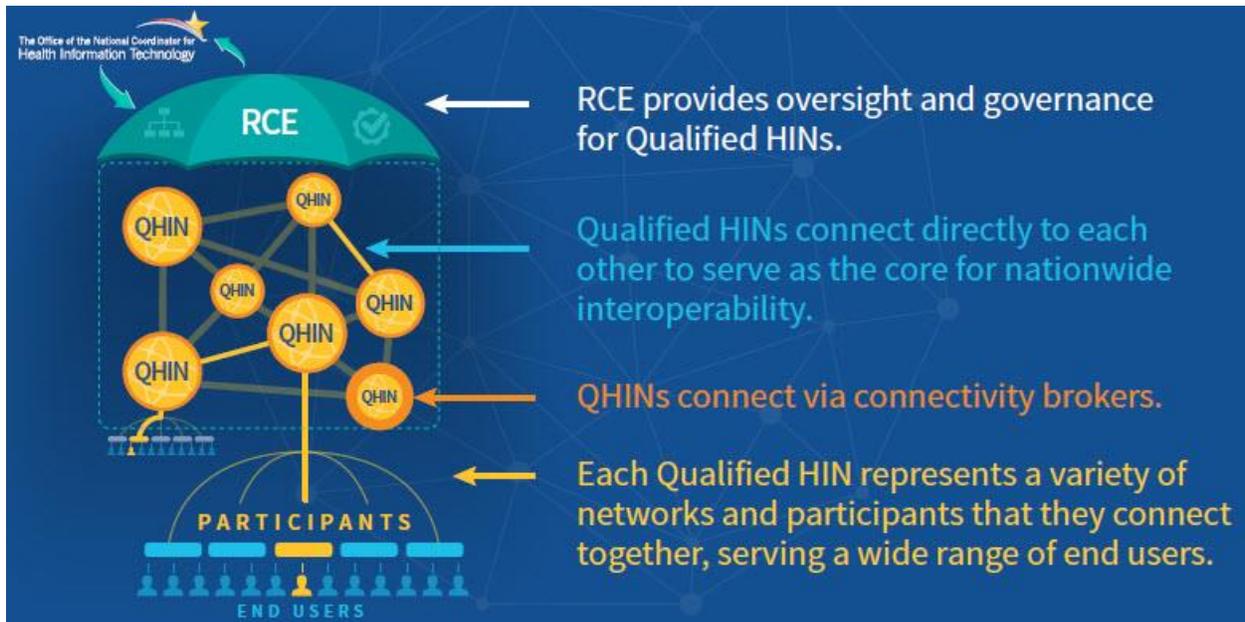
List of Acronyms

Acronym	Full Name
1115 Waiver	Waiver that allows the state to expand Medicaid managed care
ADT	Admission, Discharge, Transfer
ANSA	Adult Needs and Strengths Assessment
ANSI	American National Standards Institute
API	Application Programming Interface
APM	Advanced Alternative Payment Models
BHS	Behavioral Health Services
CANS	Child and Adolescent Needs and Strengths
CAQH	Council for Affordable Quality Healthcare
CHIP	Children's Health Insurance Program
CEHRT	Certified Electronic Health Record Technology
CMBHS	Clinical Management for Behavioral Health Services
CMS	Centers for Medicare and Medicaid Services
CORE	Committee on Operating Rules for Information Exchange
COTS	Commercial-off-the-shelf
Cures Act	21st Century Cures Act
DEA	Drug Enforcement Administration
DMO	Dental Maintenance Organizations
DSHS	Texas Department of State Health Services
DSRIP	Delivery System Reform Incentive Payment Program
ECHO	Extension for Community Healthcare Outcomes (Project ECHO)
ED	Emergency Department
EDEN	Emergency Department Encounter Notification
EHI	Electronic Health Information
EHR	Electronic Health Record
eHAC	e-Health Advisory Committee
ELR	Electronic Laboratory Reporting
FHIR	Fast Healthcare Interoperability Resources
HCBS-AMH	Home and Community-Based Services - Adult Mental Health
HHS	Health and Human Services
HHSC	Texas Health and Human Services Commission

Acronym	Full Name
HIE	Health Information Exchange
HIETexas	State-level services operated by the Texas Health Services Authority
HIE IAPD	Health Information Exchange Implementation Advanced Planning Document
HIPAA	Health Insurance Portability and Accountability Act of 1996
HIN	Health Information Network
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health
HL7	Health Level Seven
HMO	Health Maintenance Organization
HPSA	Health Professional Shortage Area
iCoE	Integration and Data Exchange Center of Excellence
IAPD	Implementation Advanced Planning Document
IDD	Intellectual and Developmental Disability
IDD-BHS	Intellectual and Developmental Disabilities and Behavioral Health Services
IIS	Immunization Information System
ImmTrac2	State of Texas Immunization Registry Replacement
ISA	Interoperability Standards Advisory
IT	Information Technology
LBB	Legislative Budget Board
LHD	Local Health Department
LIDDA	Local Intellectual and Developmental Disability Authority
LMHA	Local Mental Health Authorities
MIPS	Merit-based Incentive Payment System
MCO	Managed Care Organization
MCOTS	Modified Commercial-Off-the-Shelf
NAACCR	North American Association of Central Cancer Registries
NBS	Newborn Screening
NEDSS	National Electronic Disease Surveillance System
ONC	Office of the National Coordinator for Health Information Technology
OPIC	Office of Public Insurance Counsel
PCP	Primary Care Provider

Acronym	Full Name
PDPM	Prescription Drug Monitoring Program
PASRR	Preadmission Screening and Resident Review
PHI	Protected Health Information
PHR	Personal Health Record
PI	Promoting Interoperability
PMP	Prescription Monitoring Program
PULSE	Patient Unified Lookup System for Emergencies
QHIN	Qualified Health Information Network
RCE	Responsible Coordinating Entity
SOR	State Opioid Response
SNF	Skilled Nursing Facility
SUD	Substance Use Disorder
TCR	Texas Cancer Registry
TEFCA	Trusted Exchange Framework and Common Agreement
THCIC	Texas Health Care Information Collection
THSA	Texas Health Services Authority
TWITR	Telemedicine Wellness Intervention Triage and Referral
TxS2	Texas Syndromic Surveillance
TxEVER	Texas Electronic Vital Events Registrar
USCDI	United States Core Data for Interoperability
YES	Youth Empowerment Services

Appendix A. TEFCA

RCE provides oversight and governance for Qualified HINs.

Qualified HINs connect directly to each other to serve as the core for nationwide interoperability.

QHINs connect via connectivity brokers.

Each Qualified HIN represents a variety of networks and participants that they connect together, serving a wide range of end users.

Appendix B. eHAC Recommendations

The Health and Human Services Commission eHAC recommendations below have been excerpted from the December 2018 and February 2020 eHAC annual reports. Subcommittee recommendations from the 2020 eHAC annual report are also included.

Task 1:

Advises HHS agencies on the development, implementation, and long-range plans for healthcare information technology and health information exchange (HIE), including use of (1) electronic health records, computerized clinical support systems, health information exchange systems for exchanging clinical and other types of health information, and (2) other methods of incorporating health information technology in pursuit of greater cost-effectiveness and better patient outcomes in healthcare and population health.

2020 Recommendations

The table below presents the eHAC's recommendations, related information from HHS agencies regarding the status of each recommendation and any future planned eHAC activities.

Committee Recommendation	Status	Action Needed
Revise Texas Medicaid Medical Policy including updating the definition of telemedicine.	Complete	Process for on-going review and revision of policy to stay current industry change in telemedicine application.
Recommend removal of the requirements for site presenters.	Complete	No further action needed at this time.
Remove the requirement for an initial in-person consultation.	Complete	No further action needed at this time.

Committee Recommendation	Status	Action Needed
Add guidelines surrounding electronic prescribing during a telemedicine encounter.	Complete	Medicaid providers can generate a valid electronic prescription from a telemedicine encounter. All federal and state law and rule requirements would need to be met.
Ensure all Medicaid MCOs include reimbursement for virtual services covered same as in- person.	Complete	Process for on-going review and revision of policy to stay current industry change in telemedicine application.
Continue remote patient monitoring benefit.	Complete	Continued via SB 670 and HB 1063 (2019 Legislative Session).
Recommend expansion of coverage to include substance abuse treatment (recovery services, counseling, and e-prescribe).	Ongoing	Scope included in implementation of SB 670 (2019 Legislative Session).
National data standards work for Texas, and state health agencies should not create or recommend standards that deviate from national standards.	Complete/ongoing	State health agencies, to date, have not recommended standards that deviate from national standards. This should continue into the future.
HHS agencies should use HIETexas, when appropriate, to exchange messages with trading partners and collaborate with the state's health information exchanges to increase participation by health care providers.	Complete/ongoing	HHSC signed a contract with THSA to incorporate HIETexas into the HIE Connectivity Project. This project will be implemented over the next several years.
Change requirement for Immunization opt-in to opt-out.	Incomplete	Current state law specifies that the state immunization registry operates an opt-in basis. Legislative action is required to change the registry to an opt-out system.

Committee Recommendation	Status	Action Needed
Encourage data sharing of behavioral health data from LMHAs through HIEs across the State as needed within legal constraints.	Ongoing	Further discussion is needed.

2018 Report on Task 1

In today's healthcare, patients and providers contend with multiple technology interfaces that lack communication and standardization. These technology issues involve the disjointed communication between electronic health records, providers, and between HIEs. The need for multiple systems to access information, without an interconnection of data, delays of care and increases in cost. It is during times of emergency and disaster response that these issues in healthcare technology are exacerbated. The need for integration is heightened in these situations to ensure positive outcomes of patients and continuity of care after the emergency is resolved. During the provision of treatment to patients the incorporation of HIEs, EHRs, and Personal Health Records (PHRs) afford the opportunity for greater cost-effectiveness and improved patient population health outcomes. Previous eHAC recommendations have been made to address the development, implementation, and long-range plans of HIT and HIEs.

In past reports, the Committee recommended Texas HHS be required to consolidate available payer and public health information for Medicaid and CHIP clients in a standard format that is readily accessible through HIEs, EHRs, and PHRs for the purpose of treatment and emergency response. This would allow access to a consolidated Medicaid, public health, payment, and clinical client record, utilizing the existing means while fully incorporating HHSC and HIEs. In the process, relevant data should be made available to support HHSC in the growth of alternative payment methods and the provision of quality initiatives. Along with this notion, is the recommendation by the Committee to review the existing patient consent model for HHS to maximize the sharing of clinical, payer, and public health information with HIEs, EHRs, PHRs in the treatment of patients, including mental health treatments. This would allow for the sharing of data and continuity of care for patients.

The eHAC also recommended that when applicable HHS agencies should use HIETexas. This platform allows for communication and collaboration to take place

among trading partners and the state's HIEs, allowing for an increase in the participation of healthcare providers.

The Committee also recommended changing the participation basis for the immunization registry from opt-in to opt-out to afford providers with information that streamlines point-of-care treatments. Another recommendation from the Committee, involved the sharing of behavioral health data from LMHAs, while meeting legal constraints, through HIEs, allowing behavioral health information to be provided to providers across HIEs. All recommendations align with the recommendation of the Committee that state health agencies should not create or recommend standards that deviate from the national data standards. These national data standards are generally utilized in Texas; however, the Committee understands there are unique circumstances that make the implementation of these standards difficult. Thus, the Committee notes in their recommendation that data standards in Texas may differ from national standards when the relevant agency and appropriate stakeholders concur there is a critical limitation in the national standard that limits the ability to conduct business services. These occurrences should not exceed 10 percent of the total new transaction types defined.

The Committee's work in 2018 has continued to review emergency preparedness and the involvement of HIT in emergency preparedness. The work of the Committee continues to align with the above recommendations when taking into consideration emergency response in addition to conventional means of patient treatment. As part of this work, the Committee has recommended that Texas participate in the PULSE project, which is a nationwide health IT disaster response platform that can be deployed at the city, county, or state level to authenticate disaster healthcare volunteer providers. PULSE allows disaster workers to query and view patient documents from all connected healthcare organizations. Based on experiences related to the Committee by members that were involved in the response to Hurricane Harvey, the provision of health data to emergency workers in shelters can have enormous benefits during disaster response.

Additionally, the Committee has discussed the national opioid crisis, which has led to an additional recommendation. The recommendation is to enable access to the state's Prescription Drug Monitoring Program (PDMP) through HIEs to help combat the opioid epidemic. This would extend providers' ability to leverage a single connection- the HIEs-- to access patients' inter-state and intra-state prescription drug history in addition to other patient data. When the prescription drug history of patients is easily accessible to providers, appropriate care methods can be implemented for the patient while properly addressing the opioid crisis.

Task 2:

Advises HHS agencies on incentives for increasing healthcare provider adoption and usage of an electronic health record and health information exchange systems.

2020 Recommendations

The table below presents the eHAC's recommendations, related information from HHS agencies regarding the status of each recommendation and any future planned eHAC activities.

Committee Recommendation	Status	Action Needed
Review all data streams from providers into the HHS system in order to identify opportunities for consolidated reporting and administrative simplification process platforms (MCOs, public health, etc.).	Ongoing	The connections established between providers and HHS through the current Health Information Exchange Implementation Advanced Planning Document (HIE IAPD) will allow for the consolidation of the number of connections required by health care providers. The EDEN system, also included in the IAPD, will enable the exchange of ADT messages that may be used by Texas Medicaid and public health to support a variety of programs.
Provide a complete inventory of inbound or outbound streams of clinical data between HHSC and Texas healthcare providers, how much data is flowing in each, what data and transport standards are in use for each, whether there are existing national/industry standards that could be used for each type of data, and what the plan is to move toward those standards.	Complete/ongoing	Much of this material is contained in the Powering Texas report. In 2020, the interoperability subcommittee will review the report to see if it fully meets the intent of this recommendation or if changes are needed.

Committee Recommendation	Status	Action Needed
Provide incentive payments for certain services (new patient, emergency) when patient health record was utilized in the provision of the service to that patient (proof of compliance would be summary of care document or health record number).	Discontinued	Due to the special terms and conditions of the 1115 Waiver related to requiring data sharing among Medicaid providers who are treating the same patient for the same condition, this recommendation is being discontinued.
Create payment incentive for Medicaid providers to engage with HIE if available in their area.	Ongoing	This is being accomplished through Strategy 1 of the HIE IAPD.
Since HIEs are allowed by statute to receive PMP data, direct the State Board of Pharmacy to facilitate a cost-effective integration for data sharing with HIEs within statutory constraints.	Ongoing	HHSC does not have this authority. The PMP is managed by the Texas Board of Pharmacy. Legislative action would be required.
Include HIEs as a standard component in disaster relief planning.	Ongoing	Planning for this activity is referenced in the draft version of the Health IT Strategic Plan.
Expand bi-directional interoperability for electronic data submission.	Ongoing	The connection between HHS and HIETexas, establishes as part of the HIE IAPD, will enable easier bi-directional data flows between providers and HHS agencies. DSHS is working to enhance interoperability for systems supporting newborn screening.

2018 Report on Task 2

Since the passage of the HITECH Act in 2009, the regulatory landscape governing the incentives for the use of electronic medical records and health information exchange systems has continued to evolve. Specifically, significant changes were made by CMS in 2018, as the "Meaningful Use" program shifted to "Promoting

Interoperability." The intent of these changes is to increase interoperability and flexibility while reducing burden and placing a strong emphasis on measures that require the exchange of health information between providers and patients. As an example of increased interoperability, electronic querying of PDMPs will be an optional measure for participating providers in 2019 and will be a required measure in 2020 for the PI program. Additionally, the State of Texas renewed its Medicaid 1115 Waiver program in the fall of 2017, which now includes a requirement that the state develop a plan to require the sharing of Continuity of Care Documents (CCD) when multiple providers are treating the same Medicaid patient.

The previous eHAC recommendations fell into two categories. The first set of recommendations addressed the need to improve data submission processes. The second set of recommendations related to actual incentives to providers.

For the first set of recommendations, the eHAC recommended that all data streams from providers into the HHS system be reported out in order to identify opportunities for consolidated reporting and administrative simplification process platforms (MCOs, public health, etc.) and that HHS provide a complete inventory of inbound or outbound streams of clinical data between HHSC and Texas healthcare providers, how much data is flowing in each, what data and transport standards are in use for each, whether there are existing national/industry standards that could be used for each type of data, and what the plan is to move toward those standards. Expanding bi-directional exchange for electronic data will also be important to fully integrate data sharing into provider workflows. Streamlined reporting should provide cost benefits to providers and to the state, and this work is underway within the agency. The Committee also recommended that HIEs be included in both PDMP reporting at the State Board of Pharmacy and as a standard component in disaster response planning.

The 2017 report made two specific recommendations around the second set of recommendations: to provide incentive payments for certain services (new patient, emergency) when a patient health record was utilized in the provision of the service to that patient, and to create a payment incentive for Medicaid providers to engage with the community HIE if available in their area.

The second recommendation will be supported through the implementation of the HITECH Act authorized Texas Health Information Exchange Implementation Advanced Planning Document (HIE IAPD), which is a funding mechanism provided by the CMS. HITECH supports incentive payments to eligible professionals and eligible hospitals to promote the adoption and meaningful use of EHR technology to promote health care quality and the exchange of healthcare information.

The HIE Connectivity Project is a Texas Medicaid HIE initiative funded by CMS through the HIE IAPD. The primary objectives of this Project are to increase HIE use and adoption by Texas Medicaid providers and create additional capacity (e.g., additional HIE organizations) in the State of Texas that can support that use and adoption. The HIE Connectivity Project will accomplish its primary objectives by implementing the following three strategies:

- Strategy 1: Medicaid Provider HIE Connectivity. This strategy will help Medicaid providers connect to HHSC-approved local HIE organizations. These connections will facilitate electronic reporting and data exchange between providers and Texas Medicaid. Texas Government Code, Subchapter V, Health Information Exchange Systems, Section 531.901(4), defines a local or regional HIE.

- Strategy 2: HIE Infrastructure. This strategy includes enhancing the state's HIE infrastructure to support connectivity with the state's Medicaid system and assisting Local HIEs in implementing connections to HIETexas, which is a set of state-level shared services managed by the THSA.

- Strategy 3: EDEN. This strategy will help Texas Medicaid reduce ED utilization and hospital readmissions by enabling better follow-up care through the electronic receipt of HL7ADT data from hospital EDs and publishing alerts to Medicaid MCOs or Dental Maintenance Organizations (DMOs) when a patient in their network is admitted to the ED, facilitating timely care coordination.

Successful implementation of the three strategies will result in increased HIE adoption and use by Medicaid providers, creation of new HIE capacity in the State, and bring clinical information into the Texas Medicaid program via HIE[20].

Most of the Committee's work on Task 2 in 2018 was focused on a subcommittee established to see if a pilot program could be established between MCOs and providers to actually provide incentive payments for checking patient records. The eHAC set several conditions for the development of the pilot:

- Payments should be incentives and not penalties for not participating in the program;

- Protections for providers to ensure that they still provide all necessary services;

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[20] https://hhs.texas.gov/about-hhs/process-improvement/health-informatics-servicesquality/local-hie-grant-program.

- Integration into the overall MCO strategy instead of a standalone project. The Committee recommended that this be structured as a pilot project between MCOs and providers; and

- A clearly stated purpose for what goals are to be achieved by the incentives, which should leverage lessons learned from current projects with MCOs and HIEs.

The subcommittee included HIE and MCO representatives and held several calls to assess the capacity of HIEs to provide data to providers and the interest level of MCOs for providing that type of payment to providers. This led to a discussion about the Texas Medicaid Delivery System Reform Incentive Payment Program (DSRIP) and whether these incentives could be paid out of that program. After presentations to the subcommittee and the eHAC by DSRIP staff, it was clear that the two programs are complimentary but that DSRIP itself cannot be a source of funds for direct incentive payments to providers. The subcommittee will continue to meet into 2019 to see if additional options can be developed to implement this recommendation.

Over the course of 2018, the Committee discussed the need to integrate all provider incentives developed through the eHAC with state and federal efforts such as Promoting Interoperability and the 1115 Waiver program. The Committee also strongly feels that any new requirements placed on providers, such as checking the PDMP, should be made a part of the provider's workflow to avoid creating additional administrative burdens on providers.

Task 3:

Advises HHS agencies on the development, use, and long-range plans for telemedicine, telehealth, and home telemonitoring services, including consultations, reimbursements, and new benefits for inclusion in Medicaid telemedicine, telehealth, and home telemonitoring programs.

2018 Report on Task 3

[Table of reimbursement information has not been included because it is no longer valid. There has also been a minor revision to the text, removing the reference to the table. The table and original text remain in the official eHAC report.]
Senate Bill 1107, passed in May 2017, expanded the options for healthcare delivery across the state. The new law allows for Texas physicians, physician assistants, advanced practice nurses with physician-delegated authority to practice medicine through synchronous videoconferencing in the same manner as a traditional face-to-face office visit. Additionally, the new law should encourage continuity of care between episodic telemedicine providers and primary care providers (PCP).

Physicians providing a telemedicine encounter must access any relevant clinical history for the patient, which often comes from the patient's PCP. Further provisions in the law specify that the physician must be available for follow-up care after the synchronous telemedicine visit or otherwise provide for coverage of the patient.

A large percentage of Texas in the western region, Rio Grande Valley, and eastern region is designated by HRSA as a Health Professional Shortage Area (HPSA). Working with providers in more urban areas, telemedicine can make an impact on reaching this population[21]. Specific shortages exist in several counties where there is no physician available. According to a recent report commissioned by the North Texas Regional Extension Center: out of the 50 states, Texas ranks 47th in its number of physicians per 100,000 population, with nearly 60% of physicians practicing in the five most urban counties. There are 35 counties with no physician of any kind.[22] It is well-established that telemedicine can increase quality patient care to rural populations, help with the survival and sustainability of rural hospitals, and assist with mitigation of transportation cost for patients with chronic disease – who otherwise would frequent metropolitan medical centers.

Currently, the Texas Medicaid Medical Policy regarding telemedicine services is undergoing revision to bring its policies into compliance with recent changes in statute. Specific changes which are needed include: updating the definition of telemedicine, removing requirements for site presenters, removing the requirement for an initial in-person consultation, and adding guidelines surrounding electronic prescribing during a telemedicine encounter.

Since passage of SB 1107, 85th Legislature, Regular Session, 2017, Texas has seen telemedicine develop in unique use-cases across various provider domains. In the most Medicaid populous regions, such as Harris County, law enforcement officers are providing synchronous telepsychiatry visits; and paramedics are initiating telemedicine visits with emergency medicine physicians to schedule primary care visits. Several projects are underway to provide neonatology services to both urban and rural areas where such specialists do not exist. These are cost-effective

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[21] Health Professional Shortage Areas. Health Resources and Services Administration. 2018. Accessed 9/19/2018.
https://data.hrsa.gov/ExportedMaps/HPSAs/HGDWMapGallery_BHPR_HPSAs_PC.pd f
[22] The Physician Workforce in Texas, North Texas Regional Extension Center. Meritt Hawkins, April 2015. Accessed 9/18/2018.
https://dfwhcfoundation.org/wpcontent/uploads/2015/04/mhaNTREC2015studyfinal .pdf [Accessed 5/5/2020.
https://www.merritthawkins.com/UploadedFiles/MerrittHawkins/surveys/Merritt_Hawkins_N TREC_Physician_Workforce_Survey.pdf]

strategies to meet patients outside of traditional healthcare settings and cost-avoidance care that otherwise would have been delivered in an emergency room.

This Committee would like to see legislative changes to expand telemedicine coverage to provide substance abuse treatment, including recovery services and counseling. Exemplary programs such as the Telemedicine Wellness Intervention Triage and Referral (TWITR) Project which delivers telepsychiatry services to at-risk middle school and high school students living in rural north Texas should be adapted and further developed across the state to address mental health challenges in young adults.

Research should be explored in the area of telemedicine utilization post SB 1107. A survey of providers to understand reasons for low utilization may help the Committee understand persistent barriers and recommend further solutions to expanded usage.

The average amount paid to providers for the top 20 categories are currently reimbursed at approximately 42% of the amount billed. The Committee proposes a survey of physicians in partnership with the Texas Medical Association to discern other barriers which may exist including low rates of reimbursement, lack of education of procedural codes or the billing process.

Additionally, the Committee would like to see reimbursement provided for additional remote monitoring categories. Monitoring of chronic diseases, such as diabetes and hypertension, has proven effective at reducing readmissions; therefore, the Committee would like to see reimbursements for additional diseases or conditions. These may include oncology services, pediatric epilepsy, and neonatology services, among others.

2020 eHAC Interoperability Subcommittee Recommendations

As recommended in previous annual reports, Texas HHS system agencies should not create or recommend standards that deviate from nationally recognized standards for the electronic exchange of health information.

Furthermore, Texas HHS system agencies should leverage the existing EHR and HIE infrastructures described in this report, and should avoid developing new infrastructure, where and when appropriate.

2020 eHAC Telemedicine, Telehealth and Telemonitoring Subcommittee Recommendations

- Incorporate telemedicine and telehealth into healthcare network adequacy regulations in a manner that expands and complements patient access to care, continues current requirements for network adequacy and engagement of local physicians and healthcare service providers.

- Explore Medicaid financing options through the Extension for Community Healthcare Outcomes (Project ECHO), a telementoring model that links primary care clinicians with specialists via teleconferencing technology.

- Work with the Drug Enforcement Administration (DEA) to modify laws on what is considered a DEA-registered site, to allow prescriptions for controlled substances to be provided via telemedicine in state-regulated settings.

- Explore options for a shared telemedicine and telehealth tech support pool that could provide a combination of onsite and virtual services for rural and underserved areas in Texas.

- Systematically assess, summarize, and disseminate experiences and lessons from DSRIP-funded telemedicine and telehealth pilots.